FILE

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March 31, 1970

RECEIVED APR 7 1970

Mr. Uldis Karins
Assistant County Engineer
New Castle County Engineering Bldg.
P. O. Box 165
Wilmington, Delaware 19899

Dear Mr. Karins:

Enclosed please find the ground-water quality data in the Tybouts Corner Sanitary Landfill, which are dated up to February 27, 1970. At present we have only five wells (P-2, P-3, P-7, P-9 and P-10) operable. Well P-11 was knocked down by a bulldozer. Therefore we would appreciate replacement of the inoperable wells in the landfill as shown on the enclosed sketch.

The water quality data for January and February 1970 show some relative deteriorations in wells P-2 and P-7. The levels of specific chemical components, specific conductance, alkalinity, hardness and chlorides are still within reasonable limits and do not contribute any serious ground-water contamination.

The stream contains coliform bacteria even before it reaches the gravel pit, possibly from septic tank effluent or even agricultural runoff (non-fecal coliforms). In one instance, a very low pH was observed in stream sample S-1 on February 6, 1970. This would indicate the influence of some factors other than landfill, since it is upstream from the landfill.

Most of the house samples collected, including the Wolfe House, had no coliforms present; but on March 13, 1970 sampling indicated some bacterial contamination of McCaffery house. The State Board of Health should be informed about this bacterial contamination situation. Obviously, this is not due to the landfill and is possibly due to a septic tank or a cesspool in the area.

I am enclosing the data for Mobile, Alabama solid waste leachate experimental work. The data shown in Table 2 were

obtained by soaking the solid waste samples in tap water for different periods of time. The leachate was chemically examined after removing the suspended particles in a centrifuge. The fresh primary grinder solid waste leached significant quantities of chlorides, other inorganic matter and some organic matter. This was true for secondary grinder and compost leachate also. The old primary-grinder leachate had significantly lower amounts of inorganic matter compared to the other samples. On the other hand, it had higher organic content as measured by the COD test. All of the samples produced highly colored effluents even after centrifuging at high speeds.

Sincerely yours,

Shankha K. Banerji

SKB/mht

Enclosures